

## Prof. HALUK YÜCEL

### Personal Information

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### International Researcher IDs

ORCID: 0000-0002-3084-9596

Publons / Web Of Science ResearcherID: G-6489-2011

ScopusID: 7003421943

Yoksis Researcher ID: 3905

### Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Fizik (Dr), Turkey 1984 - 1992

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Nükleer Enerji Mühendisliği (YI) (Tezli), Turkey 1981 - 1984

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, Turkey 1976 - 1981

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Other, Mürettebatsız Hava Araçlarına Monte Edilen Radyasyon İzleme Cihazlarında Güncel Gelişmeler, Nükleer Güç Santralinin Korunması Çalıştayı, T. C. İçişleri Bakanlığı Jandarma ve Sahil Güvenlik Akademisi, 2023

Other, Kirli Bombalar ve Nükleer Sahtecilik, Nükleer Güç Santralinin Korunması Çalıştayı, T. C. İçişleri Bakanlığı Jandarma ve Sahil Güvenlik Akademisi, 2023

Other, Technical Meeting Performance Testing and Specification of Spectroscopic and Energy Discrimination Algorithms Used for Nuclear Security, Uluslararası Atom Enerji Ajansı (IAEA), 2023

Other, Radyasyon Dedeksiyonu ve İzlenmesinde Personelsiz Hava Sistemlerinin Kullanılması, DRONE Temelli Radyasyon İzleme, SSB OTAG, 2023

Security, Technical Meeting on the Use of Uncrewed Aerial Systems for Radiation Detection and Surveillance, Uluslararası Atom Enerji Ajansı (IAEA), 2022

Measurement and Evaluation, TS EN IEC/ISO 17020 STANDARD EĞİTİMİ VE DENETÇİ EĞİTİMİ (MODÜL A;B), TÜRKAK-TÜRK AKREDİTASYON KURUMU, 2018

### Dissertations

Doctorate, 137 Cs radyoizotopunun toprak ile etkileşme mekanizmalarının incelenmesi, Gazi University, Kore Dili ve Edebiyatı Anabilim Dalı, Fizik (Dr), 1992

Postgraduate, İnce Film Dedektör Yapımı ve 252Cf Filyon Ürünleri İle Bazı Uygulamalar, Hacettepe University, Fen Bilimleri Enstitüsü, Nükleer Enerji Mühendisliği (YI) (Tezli), 1984

## Research Areas

Physics

## Academic Titles / Tasks

Professor, Ankara University, Nükleer Bilimler Enstitüsü, Nükleer Bilimler Enstitüsü Müdürü, 2021 - Continues

Professor, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Anabilim Dalı Başkanı, 2018 - Continues

Professor, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Bölümü, 2010 - Continues

Associate Professor, Nükleer Fizik, 1997 - 2009

Research Assistant, Gazi University, Fen Fakültesi, Fizik, 1983 - 1986

## Academic and Administrative Experience

Director of The Institution, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Bölümü, 2021 - Continues

Head of Department, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Bölümü, 2018 - Continues

## Courses

101526 RADYASYONDAN KORUNMA, Postgraduate, 2018 - 2019

101616 RADIATION DETECTION AND MEASUREMENT METHODS, Postgraduate, 2018 - 2019, 2016 - 2017, 2015 - 2016

102511 İLERİ NÖTRON VE REAKTÖR FİZİĞİ, Doctorate, 2018 - 2019

102510 İLERİ RADYASYON DEDEKSİYONU LABORATUVARI, Doctorate, 2018 - 2019, 2016 - 2017

RADYASYON ÖLÇÜM YÖNTEMLERİ LABORATUVARI, Postgraduate, 2018 - 2019, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

FZM 461 NÜKLEER EMNİYET VE NÜKLEER GÜVENLİK DENETİMİ TEMELLERİ, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017

101513 NÖTRON VE REAKTÖR FİZİĞİNE GİRİŞ, Postgraduate, 2018 - 2019, 2017 - 2018

102526 RADYASYONDAN KORUNMA FİZİĞİ VE ZIRHLAMA, Postgraduate, 2018 - 2019

101516 RADYASYON ÖLÇÜM YÖNTEMLERİ, Postgraduate, 2018 - 2019, 2017 - 2018

101538 RADIATION PROTECTION, Postgraduate, 2018 - 2019

İLERİ NÖTRON VE REAKTÖR FİZİĞİ, Postgraduate, 2017 - 2018

102535 İLERİ GAMA SPEKTROSKOPİ LABORATUVARI, Postgraduate, 2017 - 2018

İLERİ NÖTRON VE REAKTÖR FİZİĞİ, Doctorate, 2016 - 2017, 2011 - 2012, 2010 - 2011

RADYASYONDAN KORUNMA, Postgraduate, 2016 - 2017, 2014 - 2015, 2013 - 2014, 2012 - 2013

RADYASYONDAN KORUNMA FİZİĞİ VE ZIRHLAMA, Doctorate, 2016 - 2017, 2015 - 2016, 2014 - 2015

FZM 447 RADYASYON ÖLÇÜM YÖNTEMLERİ, Undergraduate, 2016 - 2017, 2015 - 2016

Radiation Protection, Postgraduate, 2016 - 2017

NÖTRON VE REAKTÖR FİZİĞİNE GİRİŞ, Postgraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011

101516 RADYASYON DEDEKSİYON VE ÖLÇÜM YÖNTEMLERİ, Postgraduate, 2016 - 2017

102510 NÖTRON AKTİVASYONU VE ÖLÇÜM LABORATUVARI, Postgraduate, 2015 - 2016

102535 İLERİ GAMA SPEKTROSKOPİ LABORATUVARI, Doctorate, 2015 - 2016

101617 EXPERIMENTS FOR RADIATION MEASUREMENT LABORATORY, Postgraduate, 2015 - 2016

102510 İLERİ RADYASYON DEDEKSİYON VE ÖLÇÜM LABORATUVARI, Doctorate, 2015 - 2016

101538 RADYASYONDAN KORUNMA FİZİĞİ, Postgraduate, 2015 - 2016

101514 NÜKLER ANALİZ TEKNİKLERİ, Postgraduate, 2015 - 2016

101516 RADYASYON DEDEKSİYONU VE ÖLÇÜM YÖNTEMLERİ, Postgraduate, 2015 - 2016

FZM 458 RADYASYON ÖLÇÜM LABORATUVARI, Undergraduate, 2015 - 2016  
NÖTRON ÖLÇÜMÜ VE AKTİVASYON LABORATUVARI, Postgraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013  
İLERİ GAMA SPEKTROSKOPİSİ LABORATUVARI, Postgraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013  
İLERİ GAMA SPEKTROSKOPİSİ LABORATUVARI, Doctorate, 2014 - 2015  
RADYASYONDAN KORUNMA FİZİĞİ VE ZIRHLAMA, Postgraduate, 2014 - 2015  
FZM 455 NÜKLEER FİZİK LABORATUVARI, Undergraduate, 2014 - 2015  
NÜKLEER ANALİZ TEKNİKLERİ, Postgraduate, 2014 - 2015, 2012 - 2013, 2011 - 2012, 2010 - 2011  
İLERİ RADYASYON DEDEKSİYON VE ÖLÇÜM LABORATUVARI, Doctorate, 2014 - 2015, 2013 - 2014, 2010 - 2011  
RADYASYON ÖLÇÜM YÖNTEMLERİ, Postgraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013  
NÜKLEER ANALİZ TEKNİKLERİ, Postgraduate, 2013 - 2014  
RADYASYONDAN KORUNMA, Doctorate, 2013 - 2014, 2012 - 2013  
İLERİ RADYASYON DEDEKSİYONU LABORATUVARI, Doctorate, 2012 - 2013, 2011 - 2012  
NÜKLEER FİZİK, Undergraduate, 2011 - 2012

## Advising Theses

Yücel H., Pediatrik radyolojide 5-9 yaş aralığında çocuk dozimetrisi fantomu geliştirilmesi için farklı malzemelerin doku eşdeğerliğinin CdTe X-ışın spektroskopisi tekniğiyle incelenmesi ve Bilgisayarlı Tomografide standart fantomla elde edilen dozimetrik sonuçlarla karşılaştırılması, Doctorate, S.ZÜMRÜT(Student), 2024  
Yücel H., LaBr<sub>3</sub>(Ce) Sintilasyon Dedektörü ile Ölçülen Radyoaktif Kaynaklarının Karakterizasyonu İçin Bulanık Mantık (FL) Esaslı İzotop Tanımlama Algoritması Geliştirilmesi, Postgraduate, A.BARUT(Student), 2023  
Yücel H., Çizgisel ve disk biçimli praseodim-142(142PR) brakiterapi kaynakların LABR<sub>3</sub>:CE ve HPGE dedektörleri ile aktivite karakterizasyonunun yapılması ve organ spesifik fantomlar üzerinde gama/beta doz hızı oranlarının hesaplanması, Postgraduate, M.AZE(Student), 2022  
Yücel H., Brakiterapi amaçlı üretilen 142PR beta kaynağı kullanılarak prostat grubu fantomda komşu yapıların (rektum+mesane) alabileceği dozların plastik sintilatör dozimetri tekniği ile belirlenmesi, Postgraduate, T.KAVALCI(Student), 2022  
Yücel H., Antropomorfik Yetişkin Baş-Boyun Fantomu Geliştirilmesi, Doz Dağılımlarının Plastik Sintilatör Dozimetre Tekniği ile Ölçülmesi ve Monte Carlo Simülasyon yöntemiyle Hesaplanan Sonuçlar ile Karşılaştırılması, Postgraduate, G.ÜNAL(Student), 2022  
YÜCEL H., YÜKSEK DOZ HIZLI PRASEODİM-142 BRAKİTERAPİ KAYNAĞIN REAKTÖRDE ÜRETİLMESİ VE SEÇİLEN HEDEF ORGANLARA ÖZGÜ FANTOMLARDA UYGULANABİLİRLİĞİNİN DOZİMETRİ TEKNİKLERİ İLE İNCELENMESİ, Doctorate, K.DURUER(Student), 2021  
Yücel H., Radyolojik güvenlik amaçlı kullanım için NAI(TI) dedektörlü gama spektroskopisi tekniğinin yerinde taramayla radyoizotop tanımlanması ve doz hızı ölçümlerine uygulanabilirliğinin incelenmesi, Postgraduate, T.SARI(Student), 2021  
YÜCEL H., ÜÇ BOYUTLU(3D) YAZICIDA DOKU EŞDEĞERİ MALZEMELERDEN TEK POZİSYON STATİK SAĞ EL FANTOMU ÜRETİLMESİ VE ELDE CİLT DOZUNUN PLASTİK SİNTİLATÖR DOZİMETRE(PSD) YÖNTEMİ İLE BELİRLENMESİ, Postgraduate, C.GÜNEŞ(Student), 2021  
YÜCEL H., Çizgisel ve Disk Biçimli Praseodim-142(142Pr) Brakiterapi Kaynakların LaBr<sub>3</sub>:Ce ve HPGe Dedektörleri ile Aktivite Karakterizasyonunun Yapılması ve Organ Spesifik Fantomlar Üzerinde Gama/Beta Doz Hızı Oranlarının Hesaplanması, Postgraduate, M.AZE(Student), 2021  
YÜCEL H., 90Sr / 90Y beta kaynağı kullanılarak beta dedektörlerinin kalibrasyonu ile ilgili prosedür oluşturulması, Postgraduate, F.BAYKUT(Student), 2020  
YÜCEL H., LABR<sub>3</sub>(CE) sintilasyon dedektörleri ile elde edilen gama spektrumlarından radyoizotop tanımlanması için bayesian yöntemi ile bir algoritma geliştirilmesi, Postgraduate, S.SAATCI(Student), 2020  
YÜCEL H., PLA malzemeden yapılmış göz fantomunda radyokromik film dozimetri tekniği kullanarak 142PR beta doz dağılımının incelenmesi, Postgraduate, M.KAYAN(Student), 2020  
YÜCEL H., Measurement of uranium, thorium and potassium activity content in Beylikova-Sivrihisar complex ore site and estimation of dose rates to miners, Postgraduate, S.ÖVÜÇ(Student), 2019  
YÜCEL H., Sahada gama spektrometrik aktivite ölçümü için hpge dedektörünün 238U, 232Th, 40K içeren özel bloklar

kullanılarak kalibrasyonunun yapılması ve saha ölçümüne uygulanması, Postgraduate, M.ÖZGÜR(Student), 2019

YÜCEL H., Toz ve metalik formdaki numunelerin temel parametreler yöntemi kullanılarak edxrf spektroskopisi ile kantitatif analizi, Postgraduate, O.AKDUMAN(Student), 2019

Yücel H., Development of novel shielding material based on epoxy matrix loaded by high-Z chemical powders used for mammographic, diagnostic and industrial X and gamma ray energy range, and determination of its photon attenuation properties by ionization chamber method with use of standard beam qualities, Postgraduate, İ.DEMİREL(Student), 2019

YÜCEL H., Epoksi esaslı doku eşdeğeri fantomların pediatrik radyolojide uygunluğunun incelenmesi, Postgraduate, A.SAFİ(Student), 2019

YÜCEL H., 235U zenginlik tayininde eş- eksenli grid elektrotlu CdZnTe dedektörlerin uygulanabilirliğinin incelenmesi ve maskelenmiş gama spektrumlarının çözümlenmesi için algoritma geliştirilmesi, Postgraduate, S.BALCI(Student), 2019

YÜCEL H., Mide kanseri tedavisinde üç boyutlu konformal radyoterapi, yoğunluk ayarlı radyoterapi ve volumetrik ark terapi tedavi tekniklerinin dozimetrik karşılaştırılması, Postgraduate, A.TEMÜR(Student), 2017

YÜCEL H., Mamografi görüntüleri kullanılarak glandülerite/yağ oranlarının belirlenmesi ve epoksi esaslı meme dokusu eşdeğer fantomun X-ışın spektroskopisi ile karakterizasyonu, Postgraduate, G.YEĞİN(Student), 2017

YÜCEL H., Mamografi sistemleri için doku eşdeğeri fantom geliştirilmesi, Monte Carlo simülasyon tekniği ve X-ışını spektroskopisi yöntemi ile karakterizasyonu, Doctorate, Ş.ÇUBUKÇU(Student), 2017

YÜCEL H., 226Ra, 152Eu içeren epoksi matriksli ve U, Th, K içeren selülöz matriksli marinelli geometride radyoaktif kalibrasyon kaynaklarının hazırlanması ve farklı tip HPGe detektörlerle karakterizasyonu, Postgraduate, S.ZÜMRÜT(Student), 2017

YÜCEL H., Epoksi esaslı mamografik görüntü kalitesi fantomu geliştirilmesi ve mamografik X-ışın sistemleri ile testlerinin yapılması, Postgraduate, R.BORA(Student), 2017

YÜCEL H., ISO s-137Cs (0,662meV) demet kalitesinde yaklaşık doku eşdeğeri olan BC-408 plastik sintilatör dedektörün tepkisi ile doz arasındaki ilişkinin incelenmesi, Postgraduate, Ö.EMRAH(Student), 2016

YÜCEL H., Nötron aktivasyonu ile 142Pr ve 170Tm radyoizotoplarının üretilmesi ve birincil ve ikincil radyoaktivite ölçme yöntemleri kullanılarak standardizasyonlarının yapılması, Postgraduate, E.YELTEPE(Student), 2016

YÜCEL H., Foton dedektörlerinin kalibrasyonu için bazı nist/adcl demet kalitelerinin karakterize edilmesi ve hava-kerma kalibrasyon sabitinin belirlenmesi için bir prosedür oluşturulması, Postgraduate, E.ARAN(Student), 2016

Yücel H., X-IŞINI ÖLÇEN RADYASYON DEDEKTÖRLERİNİN KALİBRASYONU VE IŞINLANMASI İÇİN 40 – 100 kVp TÜP GERİLİMİ ARALIĞINDAKİ NIST/ADCL DEMET KALİTELERİNİN ELDE EDİLMESİ, KARAKTERİZE EDİLMESİ VE HAVA-KERMA KALİBRASYON SABİTİNİN BELİRLENMESİ İÇİN PROSEDÜR OLUŞTURULMASI, Postgraduate, E.VARLI(Student), 2016

YÜCEL H., Binalarda kaplama malzemesi olarak kullanılan seramik ve mermer örneklerinin EDXRF yöntemiyle kimyasal bileşiminin belirlenmesi ve radyolojik doz değerlendirmesi için gama spektrometrik yöntemle radyoaktivite içeriklerinin ölçülmesi, Postgraduate, H.GÖKMEN(Student), 2014

YÜCEL H., 241Am-Be nötron alanında epitermal nötron spektrum  $\alpha$ -biçim parametresinin 98Mo, 55Mn ve 197Au üçlü monitör yöntemiyle belirlenmesi, Postgraduate, A.KOLBAŞI(Student), 2014

YÜCEL H., Uranyum zenginlik ölçer prensibine göre uranyum malzemelerde 235U zenginliğinin ölçülmesinde belirli bir kaynak-dedektör geometrisinde soğurucu ve kolimatör etkisinin incelenmesi, Postgraduate, A.ÖZER(Student), 2014

YÜCEL H., 40 – 100 kVp X-ışını demet kalitelerinde borosilikat cam ve boroksit ile kalsiyum sülfat yüklemeli parafinin zayıflatma özelliklerinin incelenmesi ve ön kol veya bacağı temsil eden bir su ekstremite fantomu ile karşılaştırılması, Postgraduate, A.İNCİ(Student), 2014

YÜCEL H., Diagnostik ve mamografik X-ışın demetlerine karşı koruyucu malzemelerin, plakaların ve farklı insan dokularını temsil eden fantomların farklı demet kalitelerinde x-ışınlarını zayıflatma özelliklerinin belirlenmesi, Postgraduate, E.GÜLLÜOĞLU(Student), 2013

YÜCEL H., Yaklaşık doku eşdeğeri olan BC-408 plastik sintilatörün radyolojik bölgedeki 40-120 keV X-ışınlarına ve 60-1333 keV gama ışınlarına karşı tepkisinin incelenmesi, Postgraduate, Y.ENGİN(Student), 2012

YÜCEL H., 71Ga, 75As, 115In, 152Sm, 158Gd, 164Dy, 170Er, 179Hf izotoplarının (n,?) tepkimeleri için etkin rezonans enerjilerinin çift monitör yöntemi ile belirlenmesi, Doctorate, M.GÜRAY(Student), 2008

YÜCEL H., 71Ga, 74As, 133Cs, 139La, 148Nd, 164Dy, 165Ho ve 186W izotoplarının (n,y) tepkimeleri için termal nötron ve rezonans integral tesir kesitlerinin 55Mn monitörü kullanılarak ölçülmesi, Doctorate, M.KARADAĞ(Student), 2003

YÜCEL H., İzotropik nötron alanında ışınlanan sonlu silindir numune geometrisi için numune miktarı ile termal nötron öz

soğurma faktörünün ilişkisi, Postgraduate, M.GÜRAY(Student), 2002

YÜCEL H., Ters elektrotlu germanyum dedektörle numunelerdeki uranyumun doğrudan ölçülmesi için gama spektrometrik bir metod, Postgraduate, İ.ERGİN(Student), 2000

## Jury Memberships

Appointment to Academic Staff-Professorship, Appointment to Academic Staff-Professorship, Ege Üniversitesi, November, 2022

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Development of a flexible composite based on vulcanized silicon casting with bismuth oxide and characterization of its radiation shielding effectiveness in diagnostic X-ray energy range and medium gamma-ray energies**  
DEMİREL İ., YÜCEL H.  
Nuclear Engineering and Technology, vol.56, no.7, pp.2570-2575, 2024 (SCI-Expanded)
- II. **A study on quality control check of dose distribution in blood bags irradiated by <sup>137</sup>Cs source blood irradiator by using EBT3 radiochromic film dosimetry**  
Alan H., Ünal G., Atakul T., Akyürek S., Yücel H.  
RADIATION PHYSICS AND CHEMISTRY, vol.214, 2024 (SCI-Expanded)
- III. **Application of peak based-Bayesian statistical method for isotope identification and categorization of depleted, natural and low enriched uranium measured by LaBr<sub>3</sub>:Ce scintillation detector**  
YÜCEL H., Tüzüner S. S., Massey C.  
Nuclear Engineering and Technology, vol.55, no.10, pp.3913-3923, 2023 (SCI-Expanded)
- IV. **Could atmospheric carbon be driving sedimentation?**  
Vinkovic A., Laptyev G., Yaprak G., Slavova K., Joksimovic D., Troskot-Corbic T., Frontasyeva M., Dulu O. G., Bylyku E., Shyti M., et al.  
JOURNAL OF SOILS AND SEDIMENTS, vol.22, no.11, pp.2912-2928, 2022 (SCI-Expanded)
- V. **Investigation of the suitability of new developed epoxy based-phantom for child's tissue equivalency in paediatric radiology**  
YÜCEL H., Safi A.  
NUCLEAR ENGINEERING AND TECHNOLOGY, vol.53, no.12, pp.4158-4165, 2021 (SCI-Expanded)
- VI. **CORRIGENDUM TO: ESTIMATION OF RADIOLOGICAL EXPOSURE LEVELS IN A MINING AREA BASED ON <sup>238</sup>U, <sup>226</sup>Ra, <sup>232</sup>Th AND <sup>40</sup>K ACTIVITY MEASUREMENTS: A CASE STUDY FOR BEYLIKOVA-SIVRIHISAR COMPLEX ORE SITE IN TURKEY.**  
Yücel H., Övüç S., Akkaya G., Çakmak Ş.  
Radiation protection dosimetry, vol.192, no.4, pp.530, 2020 (SCI-Expanded)
- VII. **Neutron self-shielding correction in application of k(0)-NAA standardization method to determine Mn content in manganese ores**  
AKKAYA G., YÜCEL H., BUDAK M. G.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.475, pp.1-7, 2020 (SCI-Expanded)
- VIII. **ESTIMATION OF RADIOLOGICAL EXPOSURE LEVELS IN A MINING AREA BASED ON U-238, Ra-226, Th-232 and K-40 ACTIVITY MEASUREMENTS: A CASE STUDY FOR BEYLIKOVA-SIVRIHISAR COMPLEX ORE SITE IN TURKEY**  
YÜCEL H., Ovuc S., AKKAYA G., Cakmak S.  
RADIATION PROTECTION DOSIMETRY, vol.190, no.3, pp.297-306, 2020 (SCI-Expanded)
- IX. **Determination of radioactive contaminants in sediment and sand samples from the Black Sea by HPGe Gamma-ray spectrometry**

YÜCEL H., Guven R., Demirel I.

RADIOPROTECTION, vol.55, no.2, pp.141-145, 2020 (SCI-Expanded)

- X. **Measurement of activity concentrations of U-238, Ra-226, Th-232 and K-40 in different dental ceramic materials and assessment of dose given to oral mucosa**  
DURKAN R., GÜRBÜZ A., MURAT S., YÜCEL H.  
RADIATION PHYSICS AND CHEMISTRY, vol.168, 2020 (SCI-Expanded)
- XI. **Consistency test of coincidence-summing calculation methods for extended sources**  
Sima O., Ott A. D. V., Dias M. S., Dryak P., Ferreux L., Gurau D., Hurtado S., Jodlowski P., Karfopoulos K., Koskinas M. F., et al.  
APPLIED RADIATION AND ISOTOPES, vol.155, 2020 (SCI-Expanded)
- XII. **A novel approach in voltage transient technique for the measurement of electron mobility and mobility-lifetime product in CdZnTe detectors**  
YÜCEL H., Birgul O., Uyar E., Cubukcu S.  
NUCLEAR ENGINEERING AND TECHNOLOGY, vol.51, no.3, pp.731-737, 2019 (SCI-Expanded)
- XIII. **Efficiency calibration of a coaxial HPGe detector-Marinelli beaker geometry using an Eu-152 source prepared in epoxy matrix and its validation by efficiency transfer method**  
YÜCEL H., Zumrut S., Nartturk R. B., Gedik G.  
NUCLEAR ENGINEERING AND TECHNOLOGY, vol.51, no.2, pp.526-532, 2019 (SCI-Expanded)
- XIV. **Investigation of thermal neutron detection capability of a CdZnTe detector in a mixed gamma-neutron radiation field**  
YÜCEL H., Nartturk R. B., Zumrut S., Gedik G., KARADAĞ M.  
NUKLEONIKA, vol.63, no.3, pp.59-64, 2018 (SCI-Expanded)
- XV. **Standardization of Pr-142 activity concentration**  
Yeltepe E., YÜCEL H.  
APPLIED RADIATION AND ISOTOPES, vol.134, pp.263-268, 2018 (SCI-Expanded)
- XVI. **Methodology for determination of correction factors in direct gamma spectrometric measurement of radionuclides in sediments**  
Uyar E., Yuksel A. O., Guven R., YÜCEL H.  
INTERNATIONAL JOURNAL OF SEDIMENT RESEARCH, vol.32, no.3, pp.324-330, 2017 (SCI-Expanded)
- XVII. **Characterization of paraffin based breast tissue equivalent phantom using a CdTe detector pulse height analysis**  
Cubukcu S., YÜCEL H.  
AUSTRALASIAN PHYSICAL & ENGINEERING SCIENCES IN MEDICINE, vol.39, no.4, pp.877-884, 2016 (SCI-Expanded)
- XVIII. **Measurement of Photo-Neutron Dose from an 18-MV Medical Linac Using a Foil Activation Method in View of Radiation Protection of Patients**  
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GÜVEN R., ÇAKAL G. Ö., YÜCEL H.

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**XXXV. Measurement of Thermal Neutron and Resonance Integral Cross Section for the  $^{193}\text{Ir}$  n  $^{194}\text{Ir}$  Reaction**

BUDAK M. G., KARADAĞ M., YÜCEL H.

TESNAT2016-2nd Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology 2nd International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology, Hatay, Turkey, 28 - 30 April 2016, pp.84-89

**XXXVI. RADYASYON ZIRH MALZEMELERİNDE SON GELİŞMELER**

YÜCEL H.

I.Ulusal Radyasyondan Korunma Kongresi, Ankara, Turkey, 19 - 21 November 2015

**XXXVII. X IŞINLARINA KARŞI KORUYUCU GÖREV YAPAN TİROİD KORUYUCU VE KURŞUN ÖNLÜK YAPIMINDA KULLANILAN MALZEMELERİN ZAYIFLATMA ÖZELLİKLERİNİN BELİRLENMESİ**

YÜCEL H., Güllüoğlu E., ÇUBUKÇU Ş., ÜNCÜ Y. A.

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**XXXVIII. Determination of radioactivity content in ceramic tile and marble samples used for covering materials in buildings using gamma spectrometric method for radiation dose assessment**

YÜCEL H., Gökmen H., UYAR E.

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**XXXIX. Measurement of  $^{210}\text{Pb}$  and  $^{210}\text{Po}$  Activity Concentrations in Certified Lagoon Sediment and Moss Soil by using LSC and Alpha Particle Spectrometry**

ÇAKAL G. Ö., Limon S., Güven R., YÜCEL H.

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**XL. Development of breast tissue equivalent phantom made from paraffin with some additives and its characterization by using x ray spectroscopy**

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**XLI.  $^{235}\text{U}$  ISOTOPIC CHARACTERIZATION OF NATURAL AND ENRICHED URANIUM MATERIALS BY USING MULTIGROUP GAMMA RAY METHOD WITH A PLANAR Ge DETECTOR**

YÜCEL H., YELTEPE E., YÜKSEL A. Ö., DİKMEN H.

The International Conference on Development and Application of Nuclear Technologies (NUTECH2014) 21-24.09.2014, Warsaw, Poland, Varşova, Poland, 21 - 24 September 2014

**XLII. An Application of LSC Method for the Measurement of Gross Alpha and Beta Activities in Spiked Water and Drinking Water Samples**

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NATO Advanced Research Workshop on Environmental Protection Against Radioactive Pollution, Almaty, Kazakhstan, 16 - 19 September 2002, vol.33, pp.115-122
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I. Eurasia Nuclear Science and Its Application, İzmir, Turkey, 23 - 27 October 2000, vol.2, pp.798-816

## Supported Projects

Safran S., Yücel H., Aşlar E., Other International Funding Programs, Enhancing the Capacities of Educational Institutions for the Sustainable use of Nuclear Technologies, 2022 - 2025

## Activities in Scientific Journals

Journal of Nuclear Sciences, First Editor, 2014 - Continues

## Memberships / Tasks in Scientific Organizations

TÜRKAK- Türk Akreditasyon Kurumu, Member of Science Committee, 2010 - Continues, Turkey

Türk Standartları Enstitüsü, Chairman of the Scientific Committee, 2003 - Continues, Turkey

TMMOB-Fizik Mühendisleri Odası, Member, 1986 - Continues, Turkey

## Scientific Refereeing

NUCLEAR TECHNOLOGY, Journal Indexed in SCI-E, March 2024

NUCLEAR ENGINEERING AND TECHNOLOGY, Journal Indexed in SCI-E, December 2023

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PHYSICS IN MEDICINE AND BIOLOGY, Journal Indexed in SCI-E, December 2023

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IEEE TRANSACTIONS ON NUCLEAR SCIENCE, Journal Indexed in SCI-E, November 2023

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TUBITAK Project, 2221 - Sabbatical Science Support P., Ankara University, Turkey, May 2023

MATERIALS RESEARCH EXPRESS, SCI Journal, April 2023

Project Supported by Other Official Institutions, SANAYİ VE TEKNOLOJİ BAKANLIĞI Ar-Ge Teşvikleri Genel Müdürlüğü, Turkey, April 2023

APPLIED RADIATION AND ISOTOPES, SCI Journal, January 2023

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Ankara University, Turkey, November 2022

BOREN, Ulusal Bor Araştırma Enstitüsü Projesi, Ankara University, Turkey, November 2022

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NUKLEONIKA, Journal Indexed in SCI-E, January 2022

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MEDICAL PHYSICS, Journal Indexed in SCI-E, January 2022

A.Ü. Adli Bilimler Dergisi (Journal of Nuclear Forensics), National Scientific Refreed Journal, January 2022

Biomedical Physics and Engineering Express, Journal Indexed in SCI-E, January 2022

Journal of Radiation Research and Applied Sciences, Journal Indexed in SCI-E, January 2022

INTERNATIONAL JOURNAL OF PHYSICAL SCIENCES, Journal Indexed in SCI-E, January 2022

APPLIED RADIATION AND ISOTOPES, Journal Indexed in SCI-E, January 2022

JOURNAL OF STRATEGIC STUDIES, National Scientific Refreed Journal, January 2022

Theoretical and Applied Physics, Journal Indexed in SCI-E, January 2022

INTERNATIONAL JOURNAL OF SEDIMENT RESEARCH, Journal Indexed in SCI-E, January 2022

JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, Journal Indexed in SCI-E, January 2022

Türk Yer Bilimleri Dergisi, National Scientific Refreed Journal, January 2022

NUCLEAR INSTRUMENTS AND METHODS IN PHYSICS RESEARCH, SECTION A: ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, Journal Indexed in SCI-E, January 2022

Mugla Journal of Science and Technology, National Scientific Refreed Journal, January 2022

PHYSICS IN MEDICINE AND BIOLOGY, Journal Indexed in SCI-E, January 2022

TURKISH JOURNAL OF ENGINEERING AND ENVIRONMENTAL SCIENCES, National Scientific Refreed Journal, January 2022

RADIATION PROTECTION DOSIMETRY, Journal Indexed in SCI-E, January 2022

Turkish Journal Physics, National Scientific Refreed Journal, January 2022  
NUCLEAR ENGINEERING AND TECHNOLOGY, Journal Indexed in SCI-E, January 2022  
NUCLEAR SCIENCE AND TECHNIQUES/HEWULI, Journal Indexed in SCI-E, January 2022  
BOREN, Ulusal Bor Araştırma Enstitüsü Projesi, Ankara University, Turkey, October 2019  
IEEE TRANSACTIONS ON NUCLEAR SCIENCE, Journal Indexed in SCI-E, May 2019  
Project Supported by Public Organizations in Other Countries, UNITY THROUGH KNOWLEDGE FUND Planinska 1, HR-10000 Zagreb, Croatia, Croatia, March 2017

## Scientific Consultations

Savunma Sanayi Şirketi- Nanomanyetik Bilimsel Cihazlar Sanayi ve Ticaret Ltd. Şti( ODTÜ MET Yerleşkesi Mustafa Kemal Mahallesi 2082 Cad. No: 54 A Çankaya-Ankara) , Scientific Consultancy, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Anabilim Dalı Başkanı, Turkey, 2022 - 2023  
ALSEM Aşağı Öveçler Mah 1322 cadde No79/3 Çankaya / Ankara adresinde mukim Ulus Vergi Dairesi Vergi No: 059024467 ve Ticaret Sicil No.: 059024467, Tic. Sicil No:185010, Scientific Consultancy, Ankara University, Nükleer Bilimler Enstitüsü, Medikal Fizik Anabilim Dalı Başkanı, Turkey, 2018 - 2019

## Metrics

Publication: 117  
Citation (WoS): 550  
Citation (Scopus): 390  
H-Index (WoS): 13  
H-Index (Scopus): 10

## Congress and Symposium Activities

Birinci Araştırma Koordinasyon Toplantısı-J02015 CRP Projesi, IAEA, Attendee, Vienna, Austria, 2023  
International Atomic Energy Agency- INSEN-Annual Meeting, Attendee, Vienna, Austria, 2023  
İç İşleri Bakanlığı, Jandarma ve Sahil Güvenlik Akademisi -Nükleer Güç Santralinin Korunması Çalıştayı, Panelists, Ankara, Turkey, 2023  
Third meeting of U.S.-Black Sea Nonproliferation Exchange initiative, The Civil Council on Defense and Security (CCDS) of Georgia and Export Control and Border Security (EXBS) Program of the U.S. Department of State, Invited Speaker, Tbilisi, Georgia, 2023  
Invited Speaker, Ankara, Turkey, 2023  
Consultancy Meeting on Performance Testing and Specification of Spectroscopic and Energy Discrimination Algorithms Used for Nuclear Security , Attendee, Vienna, Austria, 2023  
IAEA Technical Meeting on the Use of Uncrewed Aerial Systems for Radiation Detection and Surveillance, Attendee, Brno, Czech Republic, 2022  
US-Black Sea Nonproliferation Exchange initiative implemented by the James Martin Center for Nonproliferation Studies (CNS), Working Group, Washington, United States Of America, 2022  
International Atomic Energy Agency- INSEN-Annual Meeting, Attendee, Vienna, Austria, 2022  
Radyoaktif Kaynakların Güvenliği ve Emniyeti: Başarılanlar ve Geleceğe Yönelik Çabalar, Attendee, Vienna, Austria, 2022  
International Conference on Nuclear Security: Commitments and Actions, Invited Speaker, Vienna, Austria, 2016